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JOB DESCRIPTION

The Pacific Ocean Division, US Army Corp of Engineers, Honolulu District, under the direction of coordinator Dan Meyers, requested the support of the 7th Engineer Detachment (Dive) to conduct an inspection and survey on the Kaumalapau Harbor breakwater and surrounding area. The 7th Dive was to verify existing conditions and locate obstacles that may impede the construction of the new breakwater, particularly along and within the proposed trench line construction. From 15 to 18 March 2004, the 7th Engineer Detachment (Dive) deployed a seven-Soldier dive team to Lanai. Utilizing SCUBA, underwater digital photography and video equipment, and the hydrographic survey set, the dive team conducted the inspection of the breakwater.

RESULTS

The 7th Dive completed the following tasks during the survey/inspection of the breakwater area:

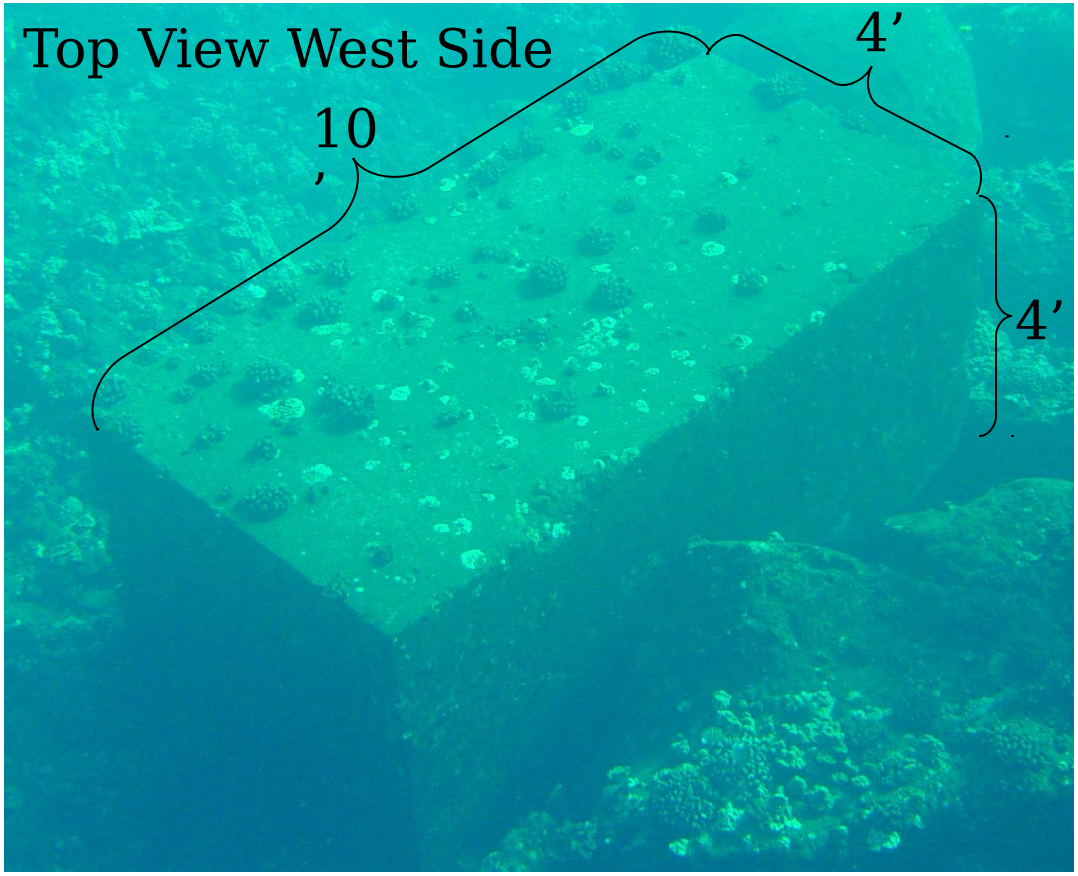
- underwater digital photographs of seven obstacles (including location, dimensions, and depth) that may impede dredging/construction of a new breakwater
- underwater video footage of the concrete buses
- underwater video footage of debris fields surrounding the breakwater
- hydrographic survey of breakwater and surrounding area

OBSTACLE LISTING

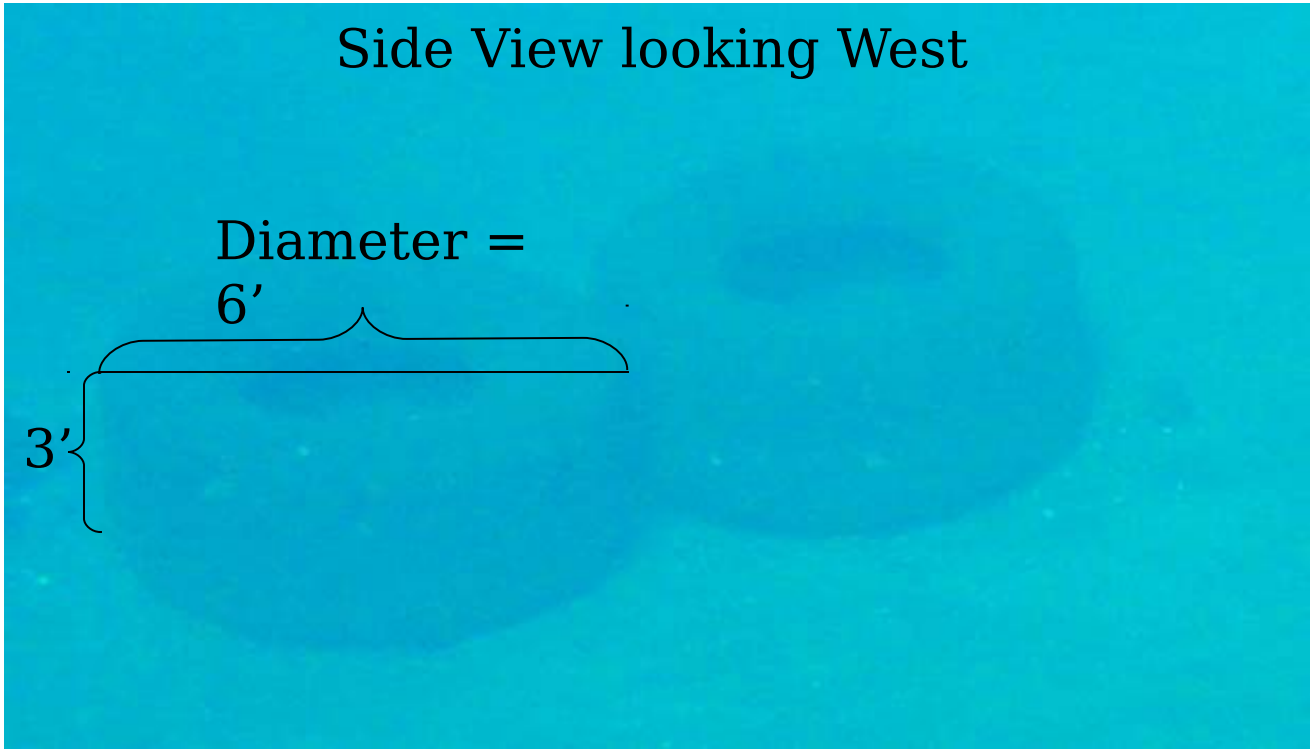
Obstacle #	Dimensions	Location	Depth
1: concrete block	10’ x 4’ x 4’	E708944.056 N2299804.870	40’
2: two tires	6’ D x 2’ height	E708934.909 N2299765.928	40’
3: pipe valve	5” D x 4’ height	E708959.954 N2299689.417	71’
4: pipe	6” D x 60’ length	E708978.978 N2299719.215	10’ – 55’
5: beam and tire	20’ x 4’ x 3’	E708994.996 N2299707.273	45’
6’ D x 1’ height			
6: anchor and drum	4’ x 2’ x 1’	E709004.460 N2299702.562	50’
5’ D x 15’ length			
7: debris field	misc. size boulders,	E709064.745 N2299789.325	35’ – 45’
tires, and metal boxes			

* The green buoy depicted on the hydrographic survey is located at E708977.370 N2299691.662.

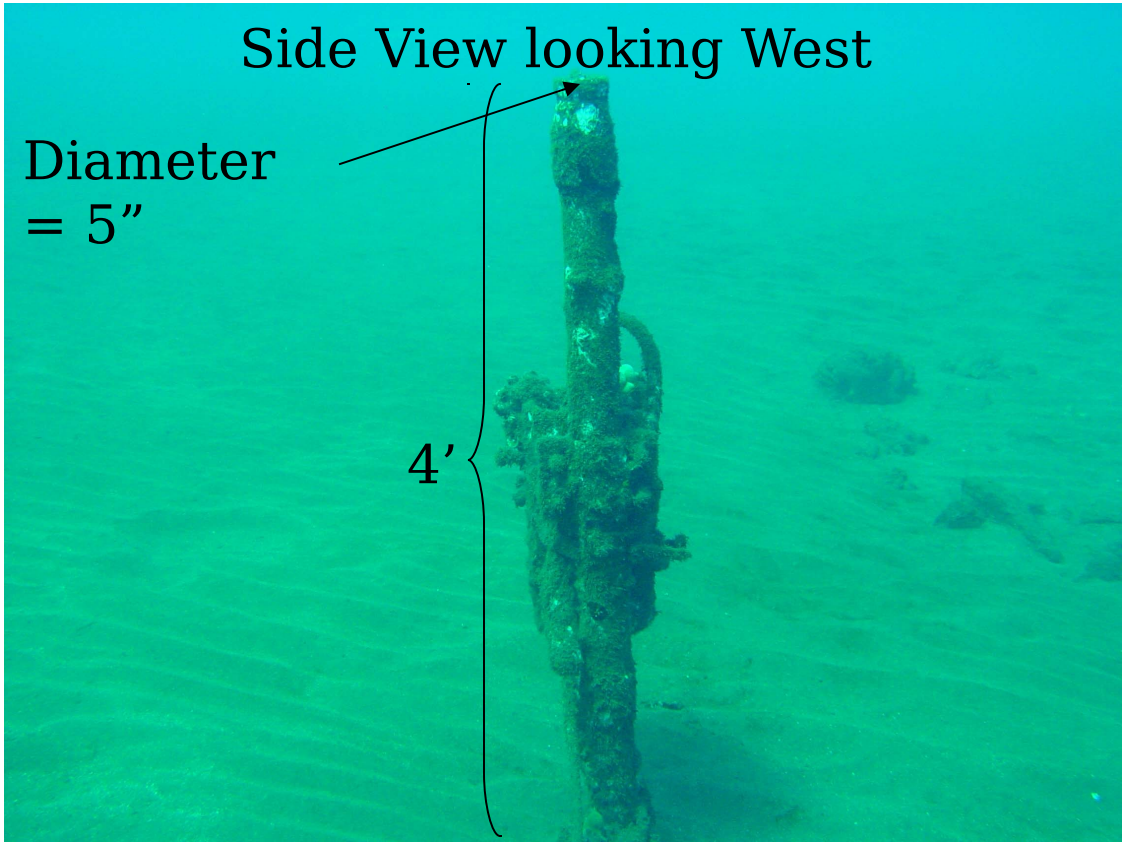
OBSTACLE #1 (CONCRETE BLOCK)



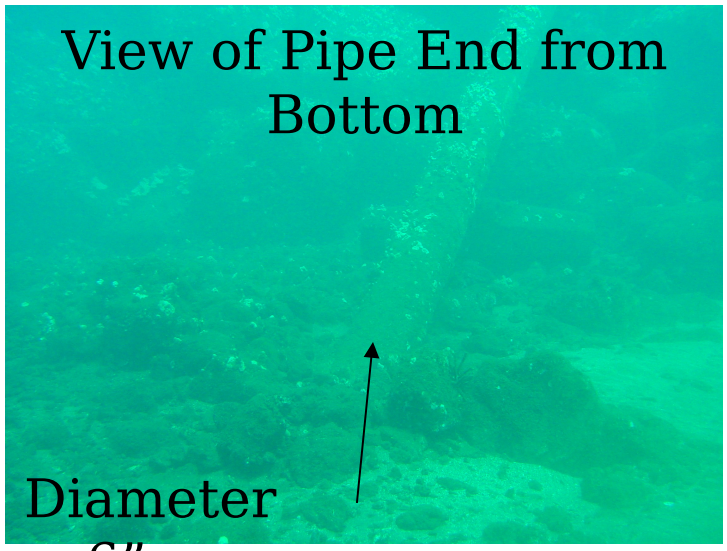
OBSTACLE #2 (TWO TIRES)

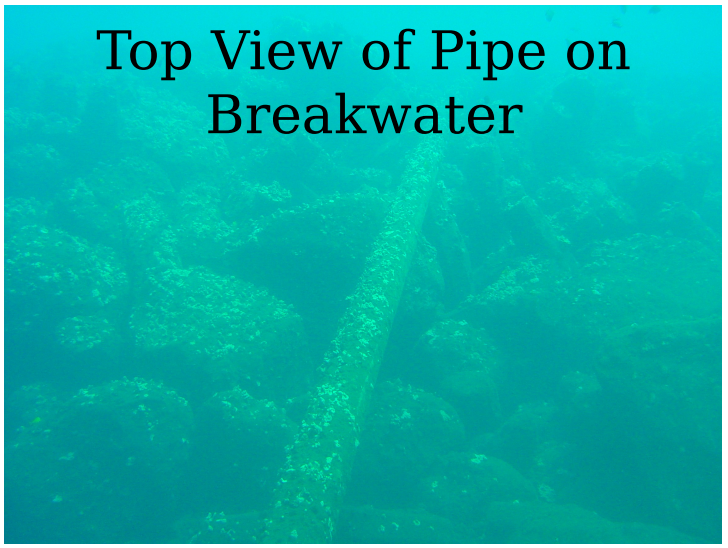


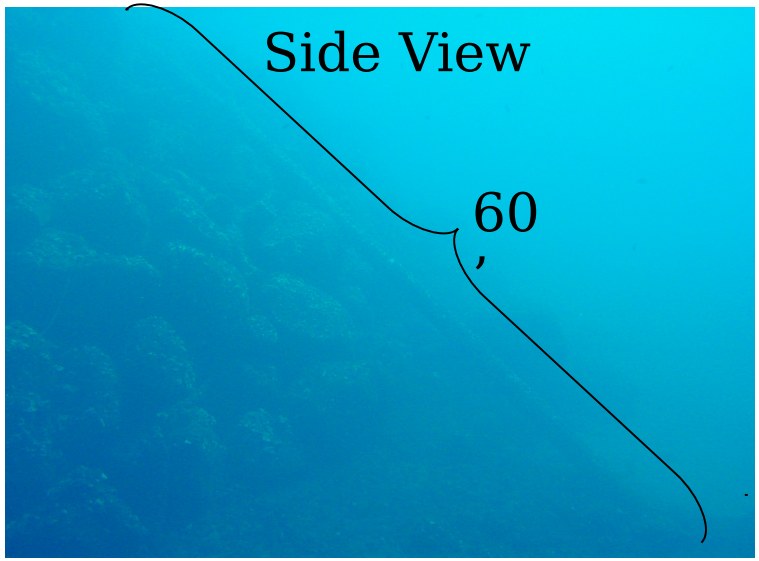
OBSTACLE #3 (PIPE VALVE)



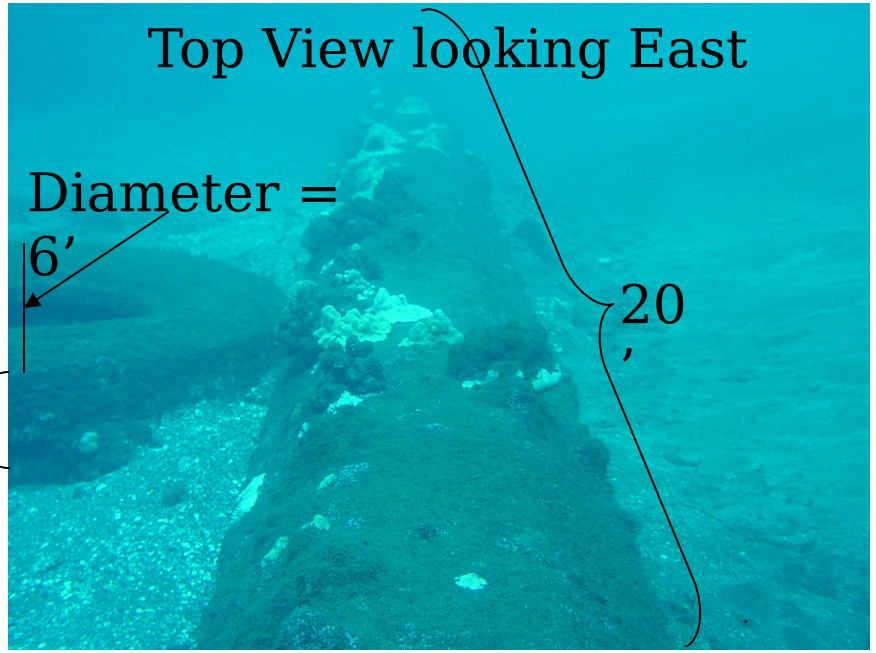
OBSTACLE #4 (PIPE)

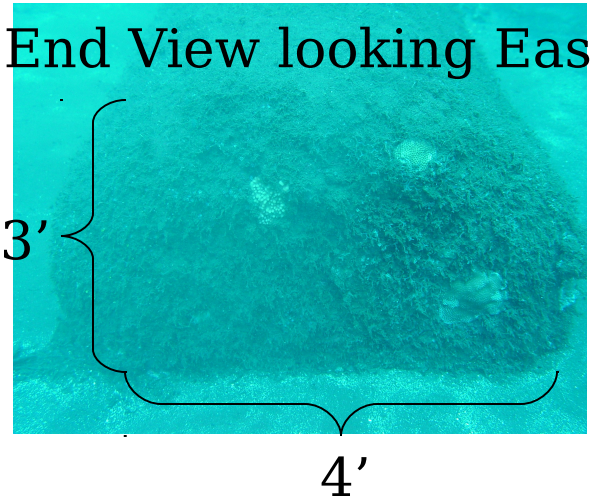




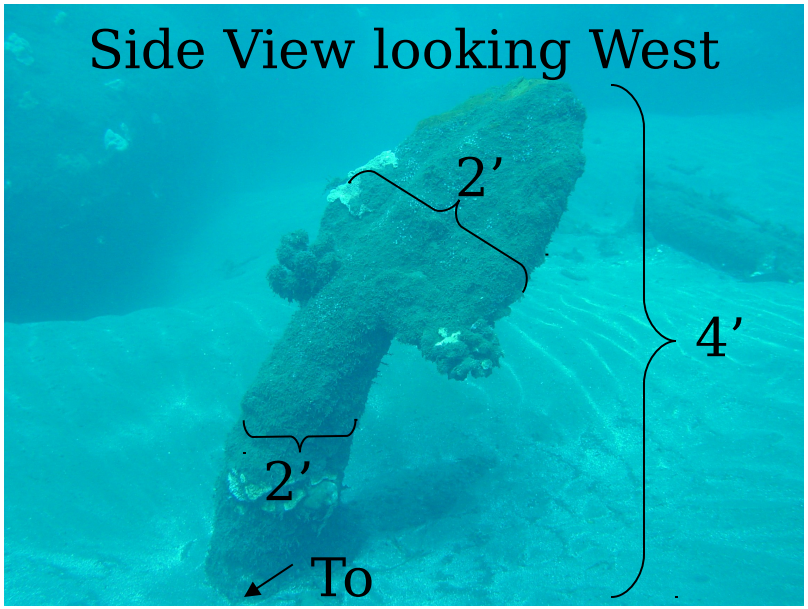


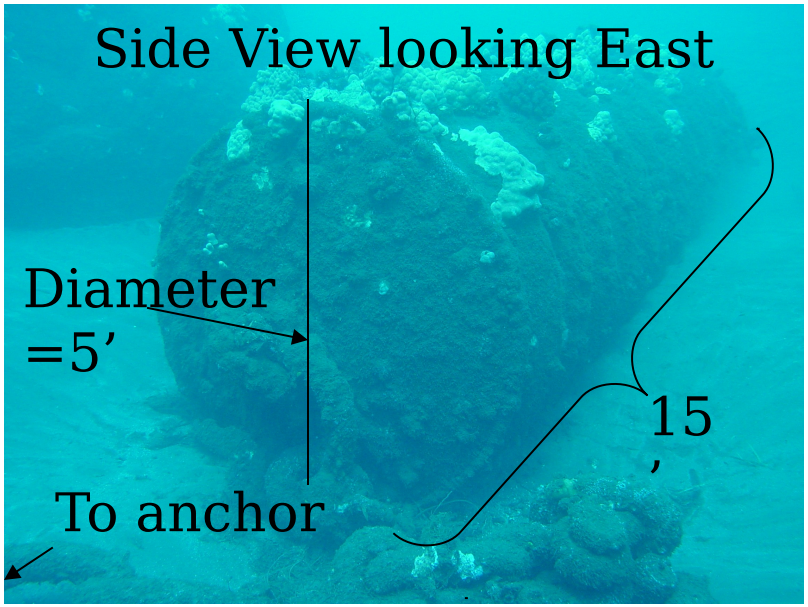
OBSTACLE #5 (BEAM AND TIRE)



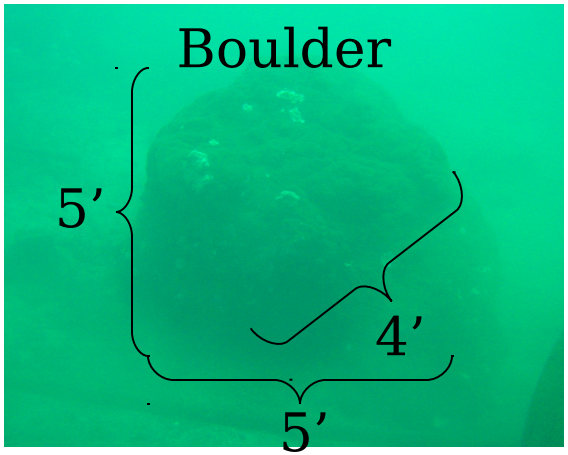


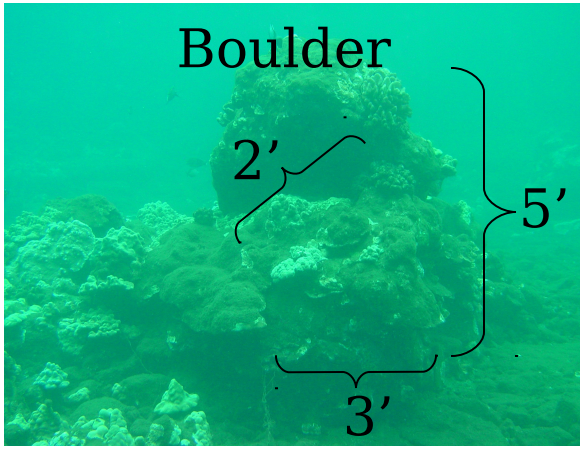
OBSTACLE #6 (ANCHOR AND DRUM)

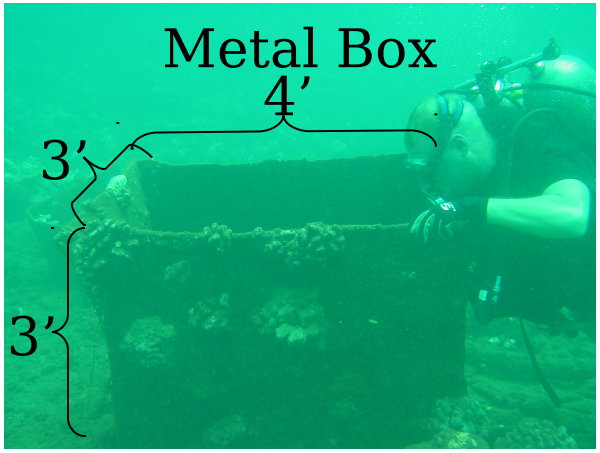


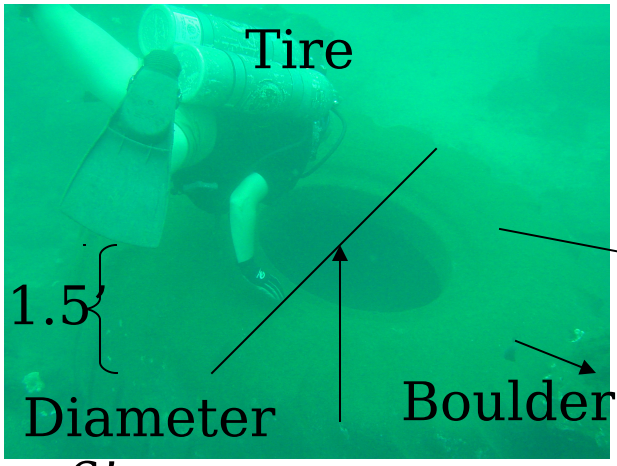


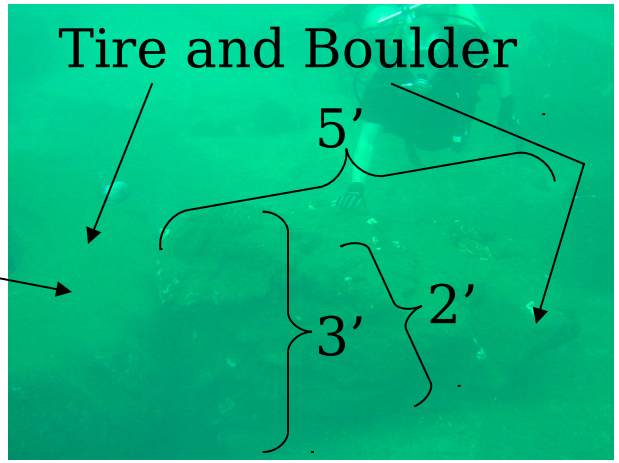
OBSTACLE #7 (DEBRIS FIELD)











VIDEO SUMMARY

The attached disc contains two videos. The first, labeled toe of breakwater, contains three minutes and eleven seconds of footage of the toe of the breakwater. It depicts the debris field of the toe and shows the considerable amount of rubbish deposited there. This video begins on the harbor side of the toe and progresses to the ocean side bus location.

The second video, labeled bus video, contains 37 seconds of footage of the various concrete buses found on the ocean side of the toe of the breakwater. The location of the buses is marked on the hydrographic survey (E708952.326 N2299746.546).

RECOMMENDATION

The Corps of Engineers notifies contractors of existing conditions, particularly the aforementioned obstacles that may impede construction. In order to ensure appropriate pre-construction site conditions, the Corps of Engineers, if necessary, calls upon the 7th Dive to remove/relocate obstacles.

DIVE TEAM INFO

Dive Team

Diving Officer	CPT Miller, Scott
Mission NCOIC	SSG Forkhamer, James
Dive Supervisor	SSG Green, Christopher
Dive Supervisor	SSG Hayden, Matthew
Salvage Diver	SGT Normandy, Christian
Salvage Diver	SGT Grabowski, John
Second Class Diver	SPC Jiminez, Edgar

Mailing Address: Commander
7th Engineer Detachment (Dive)
Building 1507A Stream Road
Fort Shafter, Hawaii 96858-5200

Phone: 808-438-6384
Fax: 808-438-4222
Email: Scott.Miller@shafter.army.mil